

# NEW AND INTERESTING RECORDS OF ADVENTIVE PLANTS FROM THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM 9

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*Abstract.* This ninth list of some recent additions to the Auckland Institute and Museum Herbarium (AK) and re-determinations of earlier gatherings provides new records for some adventive species and further information on the distribution of others.

The main source of material for this ninth list has been by exchange with D.S.I.R., Botany Division, Christchurch (CHR) and the National Museum, Wellington (WELT). In addition, specimens have been presented by Mr A.E. Esler, D.S.I.R., Auckland and Mr J. Mackinder, who has deposited voucher specimens in connection with the Waitakere Adventive Project. Mr A.E. Wright, Botanist at this Museum, has prepared for incorporation much material gathered during several field excursions.

The nomenclature adopted in this paper is that published by the New Zealand Weed and Pest Control Society (1969) except for species dealt with in volume 3 of the *Flora of New Zealand* (Healy & Edgar 1980) and in the series of checklists published in the *New Zealand Journal of Botany* from 1978 onwards by members of the D.S.I.R., Botany Division staff at Christchurch.

All specimens are cited by the AK number and, where these are provided, by the collectors' numbers. Unless otherwise stated the specimens may be regarded as the only material of the species possessed by the Herbarium and, where no previous literature is cited, as first records to the best of my knowledge at the time of writing.

## RANUNCULACEAE

*Aquilegia vulgaris* L.

Waitemata Co., Waitakere Range, dam access road, Waitakere Reservoir, 1981, J. Mackinder, AK 157947.

Information on the history of the columbine may be found in Bangarter (1980) and its distribution in Garnock-Jones (1981). This second gathering in the AK Herbarium is the most northerly.

## CRUCIFERAE

*Barbarea intermedia* Bor.

Christchurch, waste places in vegetable plot, 1963, B.H. Macmillan 63/37, AK 150707, (dupl. ex CHR 140924).

Two localities are cited in Bangerter (1976) for this wintercress, both in the North Island. The specimen above adds a representative from the South Island. Noted on the label is "first noticed in this locality Oct. 1961, now plentiful." Distribution according to Garnock-Jones (1979) is "throughout (including Stewart I.)." Esler (1978) in recording it for the Manawatu area states "nowhere abundant or troublesome."

*Brassica fruticulosa* Cyr. ssp. *mauritanica* (Cosson) Maire

Wellington, waste land outside Wellington Airport, 1977, A.E. Wright 2502, AK 142948; Wellington, Abel Smith Street, waste ground, 1979, P.J. Brownsey, AK 149974, (dupl. ex WELT). Both det. P.J. Garnock-Jones.

As stated by Garnock-Jones (1979), the first record for this *Brassica* is in Healy (1957) as *B. integrifolia*, the locality being "sand-dunes near Paraparaumu."

*Lepidium sativum* L.

Auckland City, Symonds Street, 1980, E.K. Cameron E6, AK 156412, det. Botany Division (CHR), (dupl. ex AKU 10224).

A note with this duplicate from the Auckland University Herbarium states "bare open area, white flowers and strong white tap-root 16cm long, plant 8cm tall, glaucous". This cress was first recorded by Hooker (1864), then by Thomson (1922) and Allan (1940) and listed by a few other authors. Garnock-Jones (1979) recorded it as still rare and local.

*Lunaria annua* L. ssp. *annua*

Waitemata Co., Waitakere Range, Waiatarua, Scenic Drive, 1981, J. Mackinder, AK 157938-9.

Honesty was first recorded by Allan (1940) who, according to Garnock-Jones (1979), gave its distribution as Palmerston North southward to Stewart Island. The above specimen "growing amongst weeds and rubbish" was presented by the collector. As *L. annua* var. *albiflora* is not considered distinct by Garnock-Jones, the record for this variety in Healy (1958) from Ashburton is attributed to the type subspecies. Matthews (1975) gave "weed of waste areas" as a habitat.

## RESEDACEAE

*Reseda lutea* L.

Waikato Co., Pukeroro, J.D.P. Morgan, AK 72051.

The first record for cut-leaved mignonette was published by Cheeseman (1906) as stated by Garnock-Jones (1979). The above gathering, although undated, serves as a voucher as Cheeseman cites "fields at Pukeroro" for the locality. Cheeseman (1914) also recorded a specimen collected by F. Neve from "slopes of Mt Eden, Auckland". A record of a collection by Petrie, Central Otago, 1892, was apparently first published by Thomson (1922).

#### CRASSULACEAE

*Cotyledon orbiculata* L.

Waitemata Co., Anawhata, growing on cliffs between Piha and Anawhata Beach, 1980, J. Mackinder, AK 154858.

This second gathering, from a much more northerly locality, adds to that recorded by Bangerter (1981).

#### CUCURBITACEAE

*Citrullus lanatus* (Thunb.) Matsum. & Nakai

Waitemata Co., Anawhata, growing on cliffs between Piha and Anawhata Beach, 1980, J. Mackinder, AK 154858.

Kirk (1870) and Cheeseman (1883) early recorded the watermelon as a naturalised plant. Thomson (1922) and Allan (1940) repeated these records and Sykes (1982) gave the known recent distribution as "Escape from cultivation; northern North I., rarely elsewhere."

#### MALVACEAE

*Lavatera trimestris* L.

Waimea Co., Nelson, waste ground on reclamation at base of causeway to Boulder Bank, 1979, A.E. Wright 3238, AK 151479.

The first record for this species was published in Webb (1981), where Nelson is included in the distribution. Other material in the AK Herbarium consists of garden specimens.

#### EUPHORBIACEAE

*Euphorbia nutans* Lag.

Streets of Auckland, T.F. Cheeseman, AK 74945, as *E. hypericifolia*; Auckland, 500m south of Greenlane station, 1982, A.E. Wright 4838, AK 159254, det. C.J. Webb.

Nodding spurge was recorded by Cheeseman (1883) for the Auckland area as *E. hypericifolia*, a voucher specimen for which was wrongly attributed to *E. maculata* in

Bangerter (1978). The more recent gathering above has "growing in gravel between railway lines" as a habitat. For further information on this species Webb (1981) should be consulted.

#### PAPILIONOIDEAE

*Vicia villosa* Roth. ssp. *varia* (Host) Corb.

North Canterbury, near Spye, roadside bank, 1979, W.R. Sykes, AK 151609, det. C.J. Webb (dupl. ex CHR 362849); North Canterbury, c.2km south of Greta Valley, roadside bank, 1980, C.J. Webb NIT 113, AK 151610 (dupl. ex CHR 362847).

The specimens above have been sent as duplicates from Christchurch and are vouchers for the localities cited in Webb (1980). Fodder vetch was first recorded by Healy (1957) from Tauwharenikau, Wairarapa, 1953. Flower colour noted for the first above is "corolla blue-violet" and for the second "purplish-blue."

#### UMBELLIFERAE

*Oenanthe aquatica* (L.) Poir.

Marlborough, Tua Marina, at Centennial Cairn, 1980, C.J. Webb NIT 109, AK 151622, (dupl. ex CHR 327371).

Horsebane was first recorded by Allan (1940) from the Marlborough area. It has not extended its distribution according to Webb (1978). With the above specimen, acquired by exchange from DSIR Christchurch, is a note "flowers white; quite common and well established in this area."

*Torilis japonica* (Houtt.) DC.

Rangitikei Co., Moawhango, Taihape Loop Road, 1968, P. Hynes, AK 117856; North Canterbury, near coast north of Hundalee Hills, roadside bank, 1980, C.J. Webb NIT 112, AK 151621, (dupl. ex CHR 362827).

The habitat for the first specimen above is given as "bush remnant" and a note with the second, acquired also by exchange from Christchurch, states "well established; flowers white, tinged pink". Webb (1978) gave the distribution of upright hedge-parsley as southward from South Auckland. The first published record is in Healy (1957) where a number of scattered localities were given.

*Torilis nodosa* (L.) Faern.

Auckland, One Tree Hill, Cornwall Park, 1977, A.E. Wright 1823, AK 141873; Banks Peninsula, Prices Valley, 1980, C.J. Webb 80/3, AK 151616, (dupl. ex CHR 327369).

Information on the distribution and recording of hedgehog-parsley is in Webb (1978). The above Auckland specimen was collected from "cracks of pavement beside

rock wall'' and the other from 'pasture on hillside and under trees''. It was first recorded long ago from Great Barrier Island by Kirk (1869).

#### COMPOSITAE

##### *Senecio cineraria* L.

Nelson City, western end of Tahunanui Beach, 1979, A.E. Wright 3181, AK 151438.

In the appendix to his book Allan (1940) mentioned dusty miller without giving localities but Healy (1959) recorded the plant for coastal cliffs between Redcliffs and Sumner, Canterbury. The latter author referred again to that habitat in his account of Canterbury adventives (Healy 1969). A note with the gathering above states 'naturalised among sand dunes behind beach; flowers just beginning.'

##### *Senecio cruentus* DC.

Auckland City, St. Heliers, abundantly naturalised on sea cliffs at Achilles Point, 1982, A.E. Wright 5172, AK 159830.

Records for garden cineraria as a horticultural escape seem to be few. Esler (1980) listed it for Motutapu 'under pohutukawa tree'' and Molloy (1980) for Gore Bay and Port Robinson.

#### SOLANACEAE

##### *Cyphomandra betacea* Sendt.

Kermadec Islands, Raoul Island, growing wild in forest margins about Matatirohia, 1956, R.C. Cooper. AK 44382; Tokomapuna Island (east of Kapiti Island), 1982, A.E. Wright 4785, AK 159503.

Most of the literature I have traced deals with potential diseases of the tamarillo rather than its distribution as an escape from cultivation. The habitat note for the second record above is 'one plant 1m high growing beneath taupata canopy.'

##### *Solanum sublobatum* Roem. & Schult.

Ashburton Co., Canterbury, Upper Rakaia Gorge, 1964, P. Hynes, AK 150992.

Mrs. Hynes' specimen of velvety nightshade, recently presented, is the third added to the two recorded in Bangerter (1980) and the first in the AK Herbarium from the South Island. Sykes (1981b) gave further information and stated the first record to be in Baylis (1958).

ACANTHACEAE

*Acanthus mollis* L.

Waitemata Co., Milford, Wairau Creek estuary, 1980, E.B. Bangerter 5491, AK 152486.

This gathering has been added to the one cited in Bangerter (1980), where some history of the species may be found. Further information was given by Sykes (1981a). Esler (1978), recording the plant for the Manawatu area, stated "not a weed of importance at present."

LABIATAE

*Origanum vulgare* L.

Lake Co., Queenstown, Skippers Road near Skippers, 1982, A.E. Wright 4817, AK 159013.

Marjoram was first recorded by Healy (1944) as stated by Sykes (1978). It was also listed by Healy (1969) for Canterbury. So far its distribution is limited to the South Island. A habitat note with the above gathering says "growing amongst loose rock at side of track down to the Shotover River."

LILIACEAE

*Allium roseum* L. ssp. *bulbiferum* (DC.) E.F. Warb.

Waitemata Co., Waitakere Range, Titirangi, Scenic Drive, 1981, J. Mackinder, AK 157946.

This specimen, the second in the AK Herbarium, has "roadside above dumped rubbish" on the label. The first was cited in Bangerter (1976). Further information, including a description, is in Healy & Edgar (1980).

*Muscari armeniacum* Baker

Waitemata Co., Waitakere Range, Ahuahu Road, 1978, J. Mackinder, AK 154463; Wellington, Karori Cemetery, naturalised on grassy bank, 1978, N.M. Adams, AK 145119, (dupl. ex WELT).

A detailed description of the grape hyacinth was given in Healy & Edgar (1980). The only specimen hitherto in the AK Herbarium was cited in Bangerter (1980). The first gathering above was presented by J. Mackinder and the second was acquired by exchange with the National Museum's Herbarium in Wellington. Adams (1980) provided an illustration.

*Nothoscordum inodorum* (Ait.) Nichols.

Auckland. Newmarket, north end of Olympic Pool, 1980, A.E. Wright 3624, AK 152029.

In Bangerter (1980) it was stated that the first certain record for this plant was from Whakatane, 1914; unfortunately the date is incorrect and should be 1944. A description and history of the species are in Healy & Edgar (1980). A note with the above specimen reads "abundant weed in gardens, pavement cracks etc."

*Scilla non-scripta* (L.) Hoffm. & Link.

Hokianga Co., Waipoua State Forest, Kawerua, around hut, 1976, A.E. Wright 1391, AK 141142; Wellington, South Karori Road, 1978, P.J. Brownsey, AK 149151 (dupl. ex. WELT); Waitemata Co., Waitakere Range, Ruaotewhenua, Scenic Drive, 1981, J. Mackinder, AK 157944.

The first record for the bluebell, in Healy (1958), does not include any localities as far north as Hokianga; Healy & Edgar (1980) gave Auckland City as the most northerly. Adams (1980) provided an illustration. Dr Brownsey's specimen was gathered from a stream bank whereas Mr Mackinder's was from "roadside growing amongst horticultural discards."

*Tulbaghia violacea* Harv.

Waitemata Co., Forest Hill, edge of bush reserve, 1980, E.B. Bangerter 5463, AK 151555.

Bangerter (1976) first recorded this plant as acknowledged in Healy & Edgar (1980). The gathering above has a note "few plants among a colony of *Crocsmia x crocosmiifolia* with scattered *Ulex europaeus*."

#### AMARYLLIDACEAE

*Leucojum aestivum* L.

Hokianga Co., Waipoua State Forest, growing around hut at Kawerua, 1976, A.E. Wright 1390, AK 141144.

This locality is more northerly than those given in Healy & Edgar (1980) and the gathering has been added to the two recorded in Bangerter (1975).

*Narcissus bulbocodium* L.

Waitemata Co., Waitakere Range, Titirangi, Scenic Drive, 1981, J. Mackinder, AK 157945.

Healy & Edgar (1980) reported that this daffodil "had been once collected at Pomare, Hutt Valley, in a roadside ditch . . . . . 1971." The above specimen from "roadside above dumped rubbish" adds a locality much further north.

*Narcissus tazetta* L. agg.

Waitemata Co., Milford, Wairau Creek estuary, 1981, E.B. Bangerter 5521, AK 155134; Waitemata Co., Waitakere Range, Destruction Gully, 1981, J. Mackinder, AK 157940.

The first record for this narcissus was published by Healy (1958) as noted by Healy & Edgar (1980), where a description and distribution are given. The first gathering above has a note "in waste area with other adventive weeds. Petal lobes white, corona yellow." The second, listed by Mackinder (1982), has "well established in roughly cleared area."

#### IRIDACEAE

*Ixia maculata* L.

Waitemata Co., Waitakere Range, Titerangi, Scenic Drive, 1981, J. Mackinder, AK 157956.

The first record for this species was published by Healy & Edgar (1980), the first collection being from Hutt Valley in 1953. The specimen above was collected from a "roadside."

#### JUNCACEAE

*Juncus continuus* L. Johnson

Auckland City, Grafton Gully, 1981, R.O. Gardner 2907, AK 153675, det. E. Edgar.

The sole record for this rush in Healy & Edgar (1980) is from Lake Rotokawau, Mangonui Co. Dr Gardner's habitat note reads "one unhealthy clump in muddy weed-infested area by stream."

#### GRAMINEAE

*Poa palustris* L.

Marlborough, para swamp near Koromiko, 1947, A.J. Healy H234, AK 150686, det. V.D. Zotov, (dupl. ex CHR 54535).

This grass was first recorded by Healy (1944) from Moutoa swamp, a locality to which reference is made in Esler (1978).

*Sorghum halepense* (L.) Pers.

Auckland, Remuera, alleyway between Kelvin and Pukeora Roads, 1980, A.E. Wright 3644, AK 152483; Auckland, Parnell, The Strand, between 'bus park and railway marshalling yard, 1981, A.E. Wright 3825, AK 156466.



When recording the first specimen in the AK Herbarium, Bangerter (1980) gave some information on the spread of Johnson-grass. These two additions indicate its spread further north. Accompanying notes with the Parnell plant state "3 x 2m patch on rich soil. Spreading by means of 5-6mm thick underground rhizomes" and with the Remuera plant "discrete patch 2m long at foot of hedge." Both the above colonies were subsequently eradicated by the Ministry of Agriculture and Fisheries.

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## REFERENCES

- ADAMS, N.M.  
1980 *Wild flowers in New Zealand*. A.H. & A.W. Reed, Wellington. 44p
- ALLAN, H.H.  
1940 A handbook of the naturalised flora of New Zealand. *N.Z.Dep.Scient.Ind.Res.Bull.* 83: 1-344.
- BANGERTER, E.B.  
1975 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 1. *Rec.Auckland Inst.Mus.* 12: 91-94.  
1976 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 2. *Rec.Auckland Inst.Mus.* 13: 95-100.  
1978 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 4. *Rec.Auckland Inst.Mus.* 15: 27-35.  
1980 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 6. *Rec.Auckland Inst.Mus.* 17: 97-104.  
1981 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 7. *Rec.Auckland Inst.Mus.* 18: 127-135.
- BAYLIS, G.T.S.  
1958 A cytogenetical study of New Zealand forms of *Solanum nigrum* L., *S. nodiflorum* Hacq. and *S. gracile* Otto. *Trans.R.Soc.N.Z.* 85: 379-385.
- CHEESEMAN, T.F.  
1883 The naturalised plants of the Auckland provincial district. *Trans.Proc.N.Z.Inst.* 15: 268-298.  
1906 *Manual of the New Zealand flora*. 1st.ed.Government Printer, Wellington, 1199p.  
1914 Contributions to a fuller knowledge of the flora of New Zealand 5. *Trans. Proc.N.Z.Inst.* 46: 1-9.
- ESLER, A.E.  
1978 Botany of the Manawatu district, New Zealand. *N.Z.Dep.Scient.Res.Inf.Ser.* No.127: 1-206.  
1980 Botanical features of Motutapu, Motuihe and Motukorea, Hauraki Gulf, New Zealand. *N.Z.J.Bot.* 18: 15-36.
- GARNOCK-JONES, P.J.  
1979 Checklist of dicotyledons naturalised in New Zealand. 4. Rhoeadales. *N.Z.J.Bot.* 17: 303-310.  
1981 Checklist of dicotyledons naturalised in New Zealand. 9. Ceratophyllaceae, Nymphaeaceae, Ranunculaceae and Violaceae. *N.Z.J.Bot.* 19: 157-160.

## HEALY, A.J.

- 1944 Some additions to the naturalised flora of New Zealand. *Trans.Proc.R.Soc.N.Z.* 74: 221-231.
- 1957 Contributions to a knowledge of the adventive flora of New Zealand, No.5. *Trans. R.Soc.N.Z.* 84: 649-659.
- 1958 Contributions to a knowledge of the adventive flora of New Zealand, No.6. *Trans. R.Soc.N.Z.* 85: 531-549.
- 1959 Contributions to a knowledge of the adventive flora of New Zealand, No.8. *Trans. R.Soc.N.Z.* 87: 229-234.
- 1969 The adventive flora in Canterbury. In *The natural history of Canterbury*. G.A. Knox (Ed.). A.H. & A.W. Reed, Wellington. pp.261-233.

## HEALY, A.J., and E. EDGAR

- 1980 *Flora of New Zealand* Vol.3. Government Printer, Wellington. 220p.

## HOOKER, J.D.

- 1864 *Handbook of the New Zealand flora*. Reeve, London. 392p.

## KIRK, T.

- 1869 Notes on the botany of the Great Barrier Island. *Trans Proc.N.Z.Inst.* 1: 144-155.
- 1870 On the naturalised plants of New Zealand, especially with regard to those occurring in the Province of Auckland. *Trans.Proc.N.Z.Inst.* 2: 131-146.

## MACKINDER, J.

- 1982 Waitakere Adventive Project. *Auckland Bot.Soc.News Letter* 37 (2): 18-19.

## MATTHEWS, L.J.

- 1975 *Weed control by chemical methods*. Government Printer, Wellington. 710p.

## MOLLOY, P.B.J.

- 1980 The flora of Gore Bay, Port Robinson and Manuka Bay. *Canterbury Bot.Soc.J.* 14: 58-68.

## NEW ZEALAND WEED AND PEST CONTROL SOCIETY

- 1969 *Standard common names for weeds in New Zealand*. Editorial Services, Wellington. 141p.

## SYKES, W.R.

- 1978 Checklist of dicotyledons naturalised in New Zealand. 2. Lamiales. *N.Z.J.Bot.* 16: 392-395.
- 1981a Checklist of dicotyledons naturalised in New Zealand. 7. Scrophulariales. *N.Z.J.Bot.* 19: 53-57.
- 1981b Checklist of dicotyledons naturalised in New Zealand. 10. Polemoniales and Boraginaceae. *N.Z.J.Bot.* 19: 311-317.
- 1982 Checklist of dicotyledons naturalised in New Zealand. 12. Haloragales, Myrtales, Proteales, Theales, Violales (excluding Violaceae). *N.Z.J.Bot.* 20: 73-80.

## THOMSON, G.M.

- 1922 *The naturalisation of animals and plants in New Zealand*. University Press, Cambridge. 270p.

## WEBB, C.J.

- 1978 Checklist of dicotyledons naturalised in New Zealand. 1. Umbelliferae. *N.Z.J.Bot.* 16: 387-390.
- 1980 Checklist of dicotyledons naturalised in New Zealand. 5. Leguminosae. *N.Z.J.Bot.* 18: 463-472.
- 1981 Checklist of dicotyledons naturalised in New Zealand. 6. Araliaceae, Buxaceae, Cornaceae, Casuarinaceae, Celastrales, Euphorbiaceae, Linaceae, Malvaceae, Polygalaceae, Urticales. *N.Z.J.Bot.* 19: 45-51.